

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1 - 14. (cancelled)

15. (new) A payload launching system comprising a cable, an end portion of said cable being adapted for releasably coupling with a rocket, a rotary member adapted for rotation on an axis and drive means for disengageably engaging with the rotary member so as to rotate the rotary member on the axis, the rotary member being provided with a surface for receiving a portion of the cable remote from the rocket, the surface having a curved profile with a radial dimension which increases progressively from said axis in an arcuate direction of said axis, and means for engaging a portion of said cable remote from the rocket with the rotary member, while said rotary member is rotating, so that the portion of said cable remote from the rocket locates on said surface, while an end portion of said cable remote from the rocket is restrained at a location on the rotary member adjacent to a centre of the rotary member, and transferring means between the cable and the rocket, said transferring means being adapted to transfer the pulling force from the cable to said rocket.

16. (new) A payload launching system comprising a first cable, an end portion of said cable being adapted for releasably coupling with a rocket, a rotary member adapted for rotation on an axis and drive means for disengageably engaging with the rotary member so as to rotate the rotary member on the axis, an additional rotary member adapted for rotation on a second axis, an end portion of said cable remote from the rocket being

attached to the additional rotary member, and a second cable with an end portion which is attached to the additional rotary member, and the rotary member is provided with a surface for receiving a portion of the said second cable remote from the additional rotary member, and the surface has a curved profile, the radial dimension of which increases progressively from said axis in an arcuate direction of said axis, means for engaging a portion of said second cable remote from said additional rotary member with said rotary member, while said rotary member is rotating, so that the portion of the said second cable remote from said additional rotary member locates on said surface while the end portion of said second cable remote from the additional rotary member is restrained at a location on the rotary member adjacent to a centre of the rotary member, and transferring means between the first cable and the rocket, said transferring means adapted to transfer the pulling force from the first cable to said rocket.

17. (new) A payload launching system as described in claim 15, wherein the rocket is adapted to be accelerated by the system.

18. (new) A payload launching system as described in claim 15, wherein the transferring means are adapted to transfer the pulling force from the cable to the rocket at at least a point located after a first stage of the rocket.

19. (new) A payload launching system as described in claim 15, wherein the transferring means are adapted to transfer the pulling force from the cable to the rocket at at least a point located after a second stage of the rocket.

20. (new) A payload launching system as described in claim 15, wherein the transferring means are adapted to transfer the pulling force from the cable to the rocket at at least a point located after a payload carried by the rocket.

21. (new) A payload launching system as described in claim 15, further comprising means for disconnecting the cable from at least the transferring means.

22. (new) A payload launching system as described in claim 21, wherein the means for disconnecting the cable from at least the transferring means includes an explosive device.

23. (new) A payload launching system as described in claim 17, wherein the rocket comprises at least a point on its structure where at least the transferring means is able to transfer the pulling force from the cable to the rocket.

24. (new) A payload launching system as described in claim 17, wherein the rocket comprises points on its structure where at least the transferring means is attached to the rocket.

25. (new) A payload launching system as described in claim 15, further comprising means for detaching the transferring means from the rocket.

26. (new) A payload launching system as described in claim 25, wherein the means for detaching the transferring means from the rocket includes an explosive device.

27. (new) A payload launching system as described in claim 15, further comprising means for moving the transferring means away

from the rocket so that the rocket is able to continue its trajectory unobstructed.

28. (new) A payload launching system as described in claim 27, wherein the means for moving the transferring means away from the rocket includes an aerodynamic structure located on the transferring means.